TURNING INFORMATION INTO INSIGHT: PUBLIC-PRIVATE SECTOR PARTNERSHIP FORECASTING MODEL

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Introduction

At Federal departments and agencies, many forecasting activities are major tools to executive level decision makers who are charged with developing and implementing data-driven policy and budget scenarios. This is no less the case at the Department of Veterans Affairs and, in particular, the Veterans Health Administration (VHA) within VA, which administers all of VA's health care programs and services and delivers health care to eligible veterans. The need for flexible, accurate, and clear modeling of veterans' potential demand for VA health care, their utilization of health care services, and the associated health care costs are cornerstone to strategic management in VHA. In recent years, VHA has developed a collaborative partnership with a major private sector actuarial firm to create an integrated forecasting model that will enhance VHA's strategic management processes now and well into the future. I will discuss various aspects of this model in greater detail, but first let's take a closer look at VHA.

Veterans Health Administration (VHA)

VHA is a major contributor to the Nation's health care system. VHA has a Fiscal Year 2003 budget of over $25B. There are now over 6 million veterans (about 25% of the total veteran population) enrolled in the VHA Health Care System, and VHA, annually, provides health care services to some 4 million (of the 6 million) enrolled veterans. In FY 2001, VHA provided over 700,000 inpatient episodes of care and over 43 million outpatient visits to veterans.

Among Veterans Health Administration assets are included: 21 Veterans Integrated Service Networks (VISNs; the 21 figure reflects the recent administrative consolidation of 2 VISNs), 163 hospitals, 601 community based outpatient clinics, 134 nursing homes, 206 readjustment counseling centers, and 43 domiciliaries.

VHA has a large system of academic affiliations between its VA medical centers and many of the medical schools in the U.S. Indeed, VHA serves as the largest single provider of health professions training in the world. It is a little known fact but true that about half of all physicians in the United States have trained with VA.

VHA also administers one of the largest and most productive research organizations in the country; VHA physicians have been both nominees and winners (e.g., Rosalyn Yallow) of the Nobel Prize for medical research.

VHA is also becoming the principal Federal asset for medical assistance in large-scale disasters. This was one of VA's lesser-known roles before September 11 but, since September 11, VA's responsibilities in this regard have been expanding.

Furthermore, VHA is the largest direct care provider in the world, employing over 226,000 employees and health care providers. It also provides more services to homeless persons than anyone in the country.

VHA Enrollment System

The Veterans Health Administration (VHA) Enrollment System was mandated by Congress in 1996 (Veterans Health Care Eligibility Reform Act of 1996, P.L. 101-262) to help VA stay within its budget, since VA care is not an entitlement like Medicare. As a result of the Act, (most) veterans must be enrolled in order to obtain VA health care. They are assigned to one of seven distinct enrollment priority groups and subsequently enrolled. They have access to a comprehensive range of benefits and services (VHA's "Medical Benefits Package"). Some of the veterans who do not have to enroll include veterans who: (i) have a service-connected compensation rating of 50% or greater, (ii) have been discharged in the past year for a compensable disability that VA has not yet rated, or (iii) want care for a service-connected disability.

Since implementation of VHA enrollment in 1998, participation by veterans has been high and continues to grow. However, annually, VA assesses whether it will have the resources to meet the demand for care by veterans in all priorities. If, based on the Secretary's annual enrollment decision, it cannot, then VA may not continue to enroll veterans in the lowest level of

priorities. However, for the last four years, VA has been able to open the VA health care system to all veterans, even higher income veterans, if they are willing to make co-payments. Other potential management efficiencies that might be achieved are also considered in the Secretary's annual enrollment decision.

As of September 30, 2001, there were some 24,911,226 living veterans in the U.S. and P.R. and as of September 30, 2001, some 5,848,067 veterans (about 23% of all veterans living in the U.S. and P.R.) were enrolled in the VHA Health Care System. As of September 30, 2001, Priority 7 veterans, who include "higher income" non-service-connected veterans, accounted for about 29% of all VHA enrollees. Since the inception of VHA Enrollment, the number of Priority 7 veterans has shown the largest increase, both in absolute numbers and percent, although the number of Priority 5 veterans (about 40% of all VHA enrollees) who are predominantly "low income" has also been increasing. Priority 7 veterans are, however, the lowest cost enrollees since they have other eligibilities and insurance and rely to a lesser degree on VA than enrollees in other priorities. They may be coming to VA to bridge gaps in their insurance coverage or to reduce their out-of-pocket costs. Based on the enrollment projections, developed for the Secretary's annual enrollment decision, enrollee demand shows no sign of decreasing, with a 31% increase in the number of enrollees from 6.1 million in 2002 to 8.0 million in 2010. Most of the increase is due to increases in Priority Category 5 and 7 enrollees. The current VHA enrollment projections show that VHA enrollment will continue to increase and expenditures will also continue to rise over the next decade, if no constraints are implemented and if resources (supply) can meet the projected demand.

Eligibility Reform: VHA *Before and After* the "Veterans Health Care Reform Act of 1996", P.L. 101-262

Prior to the "Veterans Health Care Reform Act of 1996", eligibility rules for VA inpatient and VA outpatient care were different and very complicated, favored care in inpatient settings, and decisions about veterans' access to care were often made locally based upon local resources. After eligibility reform, VA health care came to be provided in the most cost-effective and clinically appropriate manner. Preventive and primary care services were offered. However, enrollment was required for receipt of VA health care and, once enrolled, all enrolled veterans received the VA's Medical Benefits Package. As a consequence of eligibility reform, a real national system of care evolved. However, with the tremendous growth in enrollment over the past few years, changes in enrollment policies are being considered to better manage the demand.

Veteran Population Trends

The current veteran population of some 25 million veterans is aging rapidly. The current official VA veteran population projections show that the total veteran population count will decrease rapidly between 2000 and 2020. However, in contrast, the number of female veterans in the veteran population will increase rapidly between 2000 and 2010 and beyond. The number of veterans age "65 or over" will reverse their downward trend and increase to peak again in 2013 (due to the aging of the Vietnam era cohort of veterans), as it did around the year 2000 (due to the aging of the World War II cohort of veterans). Also, the actual number of veterans age "85 or over" will increase greatly between 2000 and 2010 and beyond. These veteran population trends are important to VA, since they factor into all of VA's most important modeling processes. Just for example, the increase in the "85 or over" veteran population is significant since this is VHA's population at risk of increasing acute, rehabilitation, and long-term care programs and services.

VHA Demand Model Overview

This is VHA's fifth year of using a VHA Health Care Services Demand Model, developed and refined with the knowledge and capabilities of both VA and the private sector health care actuarial firm, Milliman USA. Few other public agencies have such a robust, flexible projection model, that predicted enrollment to within +/-4% for 2001.

The model integrates, among other things, data on veteran population, historical monthly VHA enrollment, enrollee characteristics from VHA surveys of enrollees, VA actual unit costs, and both VA and private sector workload measures. A summary of the modeling process follows. The results are enrollment, workload, unit costs, and expenditure projections.

Enrollment Projections

1. Obtain baseline actual enrollment by scrambled SSN
2. Develop enrollment rates using historical enrollment and historical veteran population
3. Develop projections of new enrollees using the rates developed in Step 2, the baseline from Step 1, and veteran population projections
4. Apply mortality rates to enrollment projections

Workload Projections

1. Summarize private sector health care utilization averages by geographic area
2. Adjust utilization to reflect Medical Benefits Package and Millennium Bill health care services
3. Adjust utilization to reflect age and gender characteristics of the projected veteran enrollee populations
4. Adjust utilization to reflect the morbidity of the projected veteran enrollee populations relative to the underlying private sector populations (VA patient diagnosis data used to assess relative morbidity levels)
5. Adjust utilization to reflect the estimated degree of health care management observed within the VA health care system relative to the loosely managed level observed in the local community (VA inpatient diagnosis and workload data used to assess Degree of Management)
6. Adjust utilization to reflect the estimated veteran enrollee reliance on VHA for their health care needs (veteran enrollee survey data and HCFA match data used to assess reliance)
7. Adjust utilization to reflect the residual differences between modeled and actual historical VA workload (estimates of unmeasured morbidity, reliance, and degree of health care management differences)

Unit Cost Projections

1. Obtain baseline CDR-based VA unit cost data
2. Unit Cost data adjusted for health care service mix inherent in data
3. Adjust Unit Costs to reflect reconciliation to historical VA total health care obligations

Expenditure Projections

1. Enrollment, Workload, and Unit Cost Projections are combined to produce Expenditure Projections

Results from the VHA Health Care Services Demand Model have been incorporated into other Departmental planning processes, integrated with budget and performance measures, and leverage the ability to perform diverse policy scenarios and forecasts. The model is continually updated with improved methods, new data sources, and additional analyses each year.

Strategic Management Framework

As mentioned in the introduction, the need for flexible, accurate, and clear modeling of veterans' potential demand for VA health care, their utilization of health care services, and the associated health care costs are cornerstone to strategic management in VHA. The strategic management framework in VHA has evolved over the past several years, as VA made many organizational and service delivery changes both before but also in conjunction with the previously described eligibility reforms. There are major continuing efforts to improve access along with a fundamental change in focus upon outpatient, including preventive and primary, care. VHA's continued re-organization reflects the rapid expansion and integration of VA health care programs and services, but also, a more population-focused, community-based, and prevention-oriented system, that ensures timely, accessible, and quality care. There are six guiding principles in all of this:

1. Put Quality First Until First in Quality
2. Provide Easy Access to Medical Knowledge, Expertise, and Care
3. Enhance, Preserve, and Restore Patient Function
4. Exceed Patients' Expectations
5. Maximize Resource Use to Benefit Veterans
6. Build Healthy Communities

These are VHA's "6 for 2006" guiding principles and goals.

Enhancing Strategic Management: Awards and Recognition

VA has received various awards and recognition for enhancing strategic management processes in VHA. In 1999, the Government Performance Project, conducted by Syracuse University and Government Executive magazine, awarded VA the second highest grade of any Federal Department or agency for its FY 1999 Performance Plan. Subsequently, the Mercatus Center at George Mason University rated VA an "A" on its FY 2000 Annual Performance Plan, one of only two Federal agencies to receive this grade.

Enhancing Strategic Performance: "6 for 2006" Linkage with VISN/VAHQ Requirements

There are five basic components to linking the "6 for 2006" guiding principles and goals to VISN and VA Headquarters strategic planning requirements. These are:

1. Network (VISN) Performance plans
2. Network (VISN) Strategic plans
3. VHA Chief Officer Contract
4. Budget and Performance Plan
5. VA Strategic Plan

The linkage of "6 for 2006" principles and goals with VISN and VA Headquarters requirements links strategic goals to operational tactics and provides an accountability framework for driving VHA performance.

Federal Budgets and the Future

Basic things the Federal Budget tells us include: how much will we pay down the national debt; how much will go to Defense spending; how much will our taxes go up or down? For VA, we want to know how much health care spending will there be; and will the budget and resources be enough to provide care to our clientele? The Federal Budget Process is evolving, and so, too, are VA's and the other Departments' and agencies' budget processes.

This is largely the consequence of some of the Statutory Reforms of the1990's. Of greatest significance, the CFO Act of 1990 mandated that Federal Departments and agencies annually prepare audited financial statements, and the Government Performance and Results Act of 1993 (GPRA) mandated annual performance plans. FY 1999 was the first year for agencies to provide both performance reports under GPRA and audited financial statements under the CFO Act. The intent was to make Federal entities results-oriented and accountable. Results and improved management would lead to better decision making on the part of Federal managers, and better Congressional decision making, too, with requested resources linked to results via performance information.

The VA Perspective on the Federal Budget Process, particularly in terms of health care, includes VA Performance-Based Strategic Planning, Budgeting, and Decision Making, under GPRA, the VHA Performance Management System, and VHA Performance-Based Budgeting concepts.

Should a performance budget be included as part of the President's Budget? The President's Management Agenda is part of the FY03 Federal budget; it is a strategy for improving management and performance of the Federal government. All current Federal Budgets and Forecasts are moving headlong into the Federal Performance Budgets of the future. There will be Performance-Based Budgets and there will need to be planning models and forecasts to support the performance-based budgets. For VA, its innovative and powerful public-private sector partnership health services demand model will be a major tool to aid in decision making for results. Flexible, accurate, practical, clear modeling and forecasting is cornerstone to VA's future.

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TURNING INFORMATION INTO INSIGHT

Public-Private Sector Partnership Forecasting Model

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Enhancing Strategic Management Processes in VHA

VHA a major contributor to the Nation's healthcare system

- Serves as the largest single provider of health professions training in the world.
- Becoming the principal Federal asset for medical assistance in large-scale disasters.
- Provides medical care to 4+ million veterans.
- One of the largest and most productive research organizations in the country.
- Largest direct care provider for homeless persons in the country.

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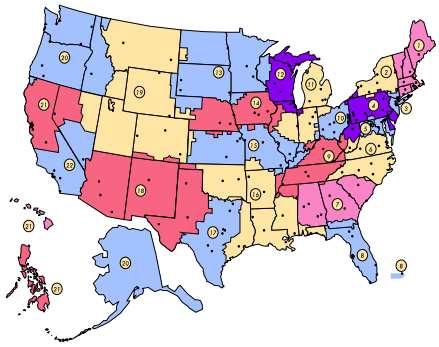
Veterans Health Administration
22 Veterans Integrated Service Networks



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Veterans Health Administration Assets

- 22 Veterans Integrated Service Networks (VISNs)
- 163 Hospitals
- 601 Community Based Outpatient Clinics
- 135 Nursing Homes
- 206 Readjustment Counseling Centers
- 43 Domiciliaries

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Eligibility Reform
***Before* Eligibility Reform**

- Different and complicated eligibility rules for inpatient and outpatient care
- Eligibility rules favored inpatient setting
- Access decisions made locally depending upon resources

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Eligibility Reform
***After* Eligibility Reform**

- Health care provided in most cost-effective clinically appropriate manner
- Preventive and primary care services
- Enrollment required, with access determined by priority group through annual resource-based enrollment decision
- Costly, inappropriate care minimized

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JOURNEY OF CHANGE: DISCOVERING SIX FOR 2006

OVERVIEW

VHA

STRATEGIC MANAGEMENT FRAMEWORK

6 for 2006

Derived from Domains of Value:

1. **Put Quality First Until First in Quality**
2. **Provide Easy Access to Medical Knowledge, Expertise, and Care**
3. **Enhance, Preserve, and Restore Patient Function**
4. **Exceed Patients' Expectations**
5. **Maximize Resource Use to Benefit Veterans**
6. **Build Healthy Communities**

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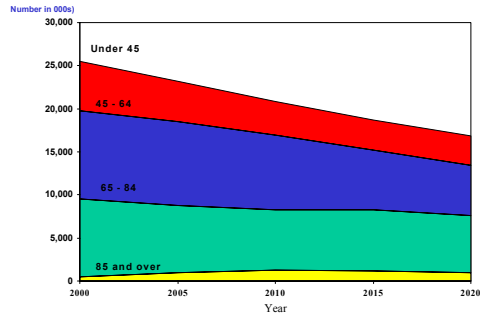
Veteran Population: Age Trends, 2000 - 2020

- The total veteran population will decrease between 2000 and 2020;
- however, the number of veterans age 65 or over will peak again in 2013;
- and veterans age 85 or over will more than double between 2000 and 2010.



Source: Vet Pop 2000

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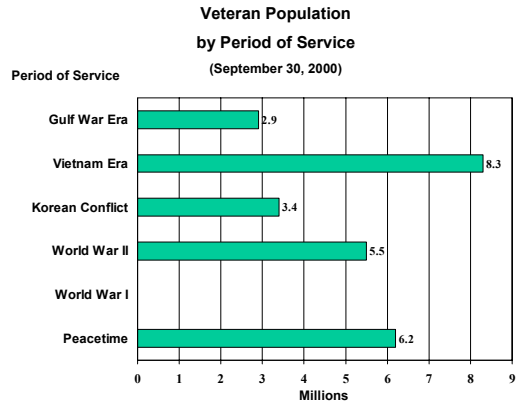

Source: Vet Pop 2000

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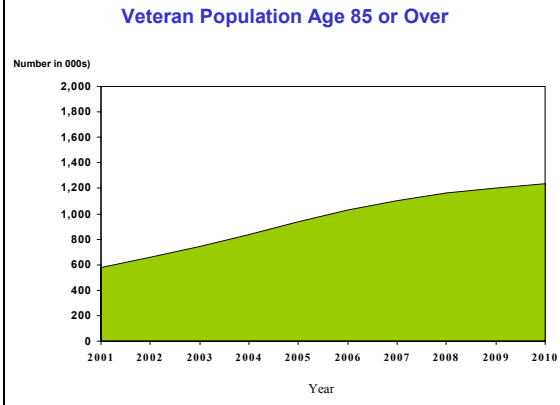

Source: Vet Pop 2000

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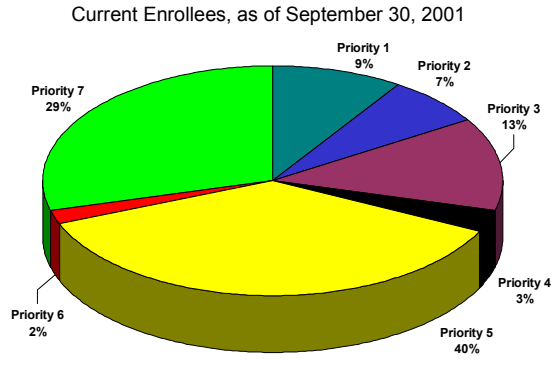

Source: Veterans Health Administration Data
Note: Total Current Enrollees = 5,848,067; excludes "ineligible", "declined", and "deceased".

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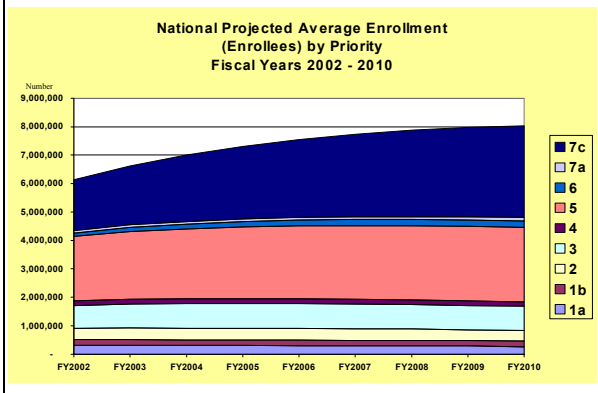

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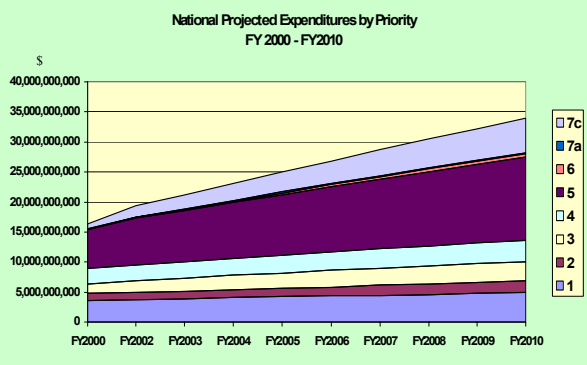

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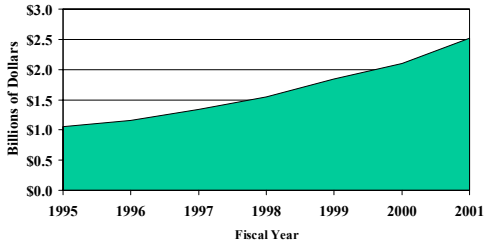
Pharmacy Obligations



* Prior to 1998, other than the cost to collect, collections were returned to the Treasury

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General Model Overview

- Enrollment Projections
- Workload Projections
- Unit Cost Projections
- Expenditure Projections

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FY 2003 Enrollment Decision: VHA Projection Model

- Fifth Year for the Projection Model
- Integration with other Planning Models
- Increasing Integration with Budget and Performance Measures
- Policy and Budget Scenarios and Forecasts

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FY 2003 Enrollment Decision: Projection Model

VHA Actuarial Model

- Enrollee Focus - uses private sector utilization benchmarks & adjusted VA unit costs for actual and projected VA enrolled population
- Focuses on actual & historical enrollment trends, with attention to total veteran population and pools of eligible veterans by priority & socio-demographics

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FY 2003 Enrollment Decision: Projection Model

Actuary Model Benchmarks

- Adjusted for age, gender, morbidity, mortality, VA reliance
- Adjusted for degree of management in VA vs. community standard
- Incorporates experience gained from actual to expected analyses
- Includes improved methods, new data resources & additional analyses each year

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Enhancing Strategic Management Processes in VHA

Awards and Recognition

VA's FY 1999 Performance Plan received the second highest score of any agency in the Federal Government

The Mercatus Center at George Mason University rated VA an "A" on it's FY 2000 Annual Performance Plan; one of only two Agencies to receive this grade

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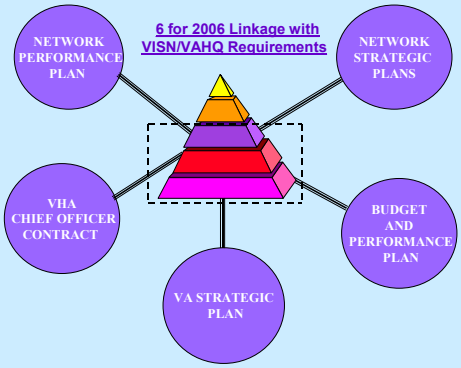
Enhancing Strategic Management Processes in VHA



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The Future

- **Turning Information into Insight**
- **Data-driven policy and budget scenarios**
- **On-time, objective, executive-level, decision focus**
- **The President' s Management Agenda is part of the FY 03 Federal Budget: it is a strategy for improving the management and performance of the Federal government**
- **Flexible, accurate, practical, clear modeling is cornerstone**